

### **Remarks**

Applicants thank the Examiner for noting typographical issues in claims 66, 76, and 92. Applicants have corrected these. Applicants have canceled claims 30, and 33, and amended claims 31, 32, 34, 35-40, 43, 62-64, 66, 76, 92, 113, 114, 117, 121, 124, 129 and 130. New claims 131-138 have been presented. Support for the amendments and new claims can be found through out the disclosure. Following entry of this amendment, claims 19-20, 31-32 and 34-138 are pending. No new matter is added by the amendments.

#### **I. Surrender of Patent Under 37 C.F. R. 1.178**

Applicants note the requirement for surrender of the original patent application before a reissue application can be allowed. Applicants request that this requirement be held in abeyance until allowable subject matter is identified.

#### **II. Reissue Declaration**

In response to the Examiner's indication that the reissue oath and declaration was defective, Applicants submit herewith a copy of the declaration in compliance with 37 C.F.R. § 1.175.

#### **III. Rejections under 35 U.S.C. § 251**

**Claims 19-44 and 62-130 are rejected under 35 U.S.C. § 251 as being improper recapture of broadened claimed subject matter surrendered in the application for patent upon which the present reissue is based.**

Applicants respectfully submit that the Examiner's rejection of claims under 35 U.S.C. § 251 is misplaced and should be withdrawn. The record does not support the Examiner's assertion that Applicants surrendered subject matter during prosecution. The mere act of amending claims is **not** dispositive evidence that Applicants surrendered subject matter during

prosecution. *In re Clement*, 131 F.3d 1464, 1469, 45 U.S.P.Q. 1161, 1163 (Fed. Cir. 1997).

Where, as here, an applicant amends a claim but files a continuation application to continue to traverse it does not amount to surrender. Specifically, *In re Clement*, 131 F.3d 1464, 1649 n.\*\*, 45 U.S.P.Q. 1161, 1163 n.\*\* (Fed. Cir. 1997). Applicants filed a continuing application prior to allowance (U.S. 08/484,941) in order to pursue subject matter not encompassed by the claims, and has subsequently filed three additional continuing applications based upon the same disclosure (U.S. Application Numbers: 08/812,665, 09/232,861 and 09/782,130). These continuing applications evidence that they have not surrendered the claimed subject matter. In view of the foregoing, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 251.

#### **IV. Double Patenting**

**Claims 19-29 and 62-130 are rejected under the judicially created doctrine of obviousness type double patenting over claims 1-11 of U.S. Patent No. 5,420,034 and claims 1-29 and 45-130 are rejected under the judicially created doctrine of obviousness type double patenting over claims 1-14 of U.S. Patent No. 4,943,674.**

While not acquiescing to the propriety of the rejection in any way, Applicants respectfully request that non-statutory double patenting rejections be held in abeyance until patentable subject matter is identified.

#### **V. 35 U.S.C. 112 First Paragraph Enablement**

**Claims 19-29 and 62-130 are rejected under 35 U.S.C. § 112 first paragraph**

Applicants thank the Examiner for the acknowledgment that claims directed to *Brassica*-derived seed-specific gene expression, transcription, and phenotypic alteration, or for light-inducible/chloroplast-containing tissue-specific or fruit-specific promoters and methods for their

use are enabled. However, the Examiner asserts that Applicant does not enable claims drawn to the use of any promoter or any regulatory sequence from any plant source to effect seed-specific gene expression transcription or phenotypic alteration; or any promoter which would effect any type of plant development stage-specific expression. The Examiner further asserts that there is no guidance in the identification, isolation, or evaluation of seed-specific heterologous gene expression, that there is no guidance presented in the identification, isolation or evaluation of seed specific promoters from species other than *Brassica*, and that there is no guidance regarding the identification of regulatory sequences effecting developmental stage-specific expression in tissues such as roots, flowers, stems or during developmental stages such as seed germination. Applicants respectfully disagree.

The Examiner has erred in failing to adequately consider that which was known. Applicants have previously placed on the record during the prosecution of parent application 08/105,852 a literature search in Appendix B attached to the April 11, 1995 response. Applicants respectfully note that other seed specific promoters are known (for example, zein genomic sequences have been isolated (Pedersen *et al.*, *Cell* 29:1015-1026 (1982); gliadin promoters (Rafalski *et al.*, *EMBO* 3(6):1409-15 (1984)), horedin promoters (Forde *et al.*, *Nucleic Acids Res.* 13(20): 7327-39(1985)) and legumin promoters (Lycett, *et al.*, *Nucleic Acids Res.* 13(18): 6733-43 (1985))). (Cited references are included with the attached Information Disclosure Statement and Form PTO-1449.).<sup>1</sup>

Moreover, other tissue or developmental promoters were reported. For example, promoters for genes with tuber-specific or tuber-enhanced expression were reported, including the class I patatin promoter (Bevan *et al.*, *EMBO J.* 8:1899-1906 (1986)); and promoters that act

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<sup>1</sup> Applicants also note that the Examiner, at page 19, lines 16-19 of Paper No. 7 mailed September 27, 2001, asserts that phaseolin is a seed-specific promoter, see Hall *et al.* U.S. Pat. No. 5,504,200.

in a tissue and development stage-specific manner, such as Cat1 (maize scutellum) (Chandlee, *et al.*, *Proc. Natl. Acad. Sci. U.S.A.* 81(15): 4103-7 (1984)).

In addition, the Examiner argues unpredictability based upon allegation that “[t]issue-specific gene expression could be the result of a variety of complex factors” rather than presenting objective evidence to challenge the disclosure. Page 12, line 9, of the September 27, 2001 Office Action, emphasis added. Applicants respectfully disagree.

First, the Examiner’s vague assertions concerning unpredictability fail to provide objective evidence necessary to impose and maintain an enablement rejection. A specification that discloses how to use a claimed invention “must be taken as in compliance with the enabling requirement of the first paragraph of § 112 unless there is reason to doubt the objective truth of the statements contained therein.” *In re Brana*, 51 F.3d 1560, 1566, 34 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1995), *quoting In re Marzocchi*, 439 F.2d 220, 223, 169 U.S.P.Q. 367, 369 (C.C.P.A. 1971) (emphasis in original).

Second, Applicants disclose and discuss the means by which an artisan can identify the useful transcriptional regions using RNA subtraction techniques starting at column 6, lines 59, and subsequently identify the entire gene. Third, as discussed above, the Examiner has erred in failing to take into account that which was known (“a patent need not teach, and preferably omits, what is well knowing the art,” *Ajinomoto Co., Inc. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1345, 56 U.S.P.Q.2d 1332 1339 (Fed. Cir. 2000) (quoting *Hybritech v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384, 231 U.S.P.Q. 81, 94 (Fed Cir. 1986))).

In light of the above, Applicants respectfully submit that the Examiner may now withdraw the rejection.

## **VI. 112 First Paragraph Written Description and New Matter**

### **Claims 19-29 and 62-130 were rejected under 35 U.S.C. § 112 first paragraph**

The Examiner asserts that claims 19-29 and 62-130 fail to meet the written description requirement of 35 U.S.C. § 112 first paragraph because the specification fails to describe the “promoter” genus. Applicants respectfully disagree.

Applicants have disclosed and described a wide variety of promoters. for example, fruit-specific promoters (*e.g.*, the 2A11 promoter, column 7, line 12 through line 41, and polygalacturonase promoter column 8, lines 46-50), seed-specific-promoters, (*e.g.*, promoters from genes encoding storage proteins such as napin, cruciferin,  $\beta$ -conglycinin and phaseolin, column 7, line 66, through column 8, line 9), light-induced promoters (*e.g.* the SSU promoter, column 7, line 42 through line 65), and developmental specific promoters (column 8, line 18 through line 67; see also Chen et al., "Functional Analysis on Regulatory Elements in a Plant Embryo-Specific Gene", Proc. Natl. Acad. Sci. USA (1986) 83:8560-8564.). Moreover, the specification describes the isolation of other promoters (*e.g.*, Example 4 starting in column 27 at line 39).

Applicants have satisfied the written description requirement by describing the claimed invention in sufficient detail that one skilled in the art would reasonably conclude that the inventor had possession of the invention. (*See, Vas-Cath v. Mahurkar*, 935 F.2d 1555, 1563, 19 U.S.P.Q.2d 1111, 1116 (Fed. Cir. 1991). Thus, Applicants respectfully submit that the Examiner should now withdraw this rejection.

**Claims 129-130 were rejected under 35 U.S.C. § 112 first paragraph for allegedly containing new matter**

The Office Action dated September 27, 2001 asserts that claims 129-130 are drawn to methods of plant cell transformation with DNA constructs which do not comprise portions of the phaseolin gene, and that there is no basis for this limitation. Applicants respectfully disagree as elements positively recited in the disclosure may be excluded in the claims. *In re Johnson*, 558 F.2d 1008, 1019, 194 U.S.P.Q. 187, 196 (C.C.P.A. 1977). Applicants note that the specification discusses the use of portions of the phaseolin gene at column 7, line 66, to column 8, line 3. In view of the foregoing, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of record.

**VII. 35 U.S.C. § 112 Second Paragraph**

**Claims 34-35, 76, 101-108, 113-130 were rejected under 35 U.S.C. § 112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.**

Applicants have amended independent claims 34, 76, 108, 113, 114, 117, 121, 124, and 142, and dependent claims 35, 112-116, 118-120, 122, 123, and 125-128. Applicants submit that the rejection of these claims is rendered moot by the amendments, and request the Examiner to withdraw the rejection of record.

The Examiner asserts that with respect to claims 101, 105 and 108 and dependent claims 102-104 and 106-107 it is unclear which of the preceding elements the sub-clause “which is from a gene native to a plant host ...” pertains to. Applicants submit that read in its entirety: “a DNA sequence of interest other than the native coding sequence of said gene which is from a gene

native to a plant host or a mutant of a gene native to a plant host” is clear. Applicants respectfully request the Examiner to reconsider and withdraw the rejection.

Applicants further submit that the claims 129-130 were clear as written. However, in order to facilitate prosecution, Applicants have amended the claims. Applicants submit the amendment renders the rejection moot and respectfully request the Examiner to withdraw the rejection.

#### **VIII. Rejections under 35 U.S.C. § 102**

**Claims 30, 33-34, 38-41 and 43-44 were rejected under 35 U.S.C. § 102(b) as being anticipated by each of Horsch *et al.* and DeBlock *et al.***

Claims 30 and 33 have been canceled by this amendment. Applicants have amended the remaining claims as suggested by the Examiner on page 16 of the September 27 Office Action.

In view of the foregoing, Applicants submit that the rejection is rendered moot.

**Claims 30, 33-34, 38-41 and 43-44 were rejected under 35 U.S.C. § 102(b) as being anticipated by Zambryski *et al.***

Applicants have amended the claims as suggested by the Examiner on page 16 of the September 27 Office Action. In view of the foregoing amendment, Applicants submit that the rejection is rendered moot.

**Claims 30, 32-35 and 37-39 were rejected under 35 U.S.C. § 102(e) as being anticipated by Rogers *et al.* (U.S. 5,034,322).**

Claims 30 and 33 have been canceled thereby rendering the rejection of these claims moot. Claim 32 has been amended to depend from claim 31 thereby rendering its rejection over Rogers *et al.* moot. Applicants respectfully submit that the amendment to claim 34 renders moot the rejection of claim 34, and its dependent claims 37-38. In addition, claim 39 which was

formerly dependent on claim 34, has been redrafted in independent form rendering moot its rejection over Rogers *et al.*

In order for a reference to anticipate a claimed invention, it must teach exactly what is claimed. *Titanium Metals Corp. v. Banner* 778 F.2d 775, 227 U.S.P.Q.2d 1766 (Fe, Cir. 1987), *cert. denied* 484 U.S. 1007 (1988). Whatever else Rogers *et al.* teaches, it neither teaches nor suggests a promoter of the type recited in combination with a mutated *aroA* gene. In view of the preceding, Applicants submit that the Examiner has failed to establish that the Rogers reference anticipates the invention of claim 35.

In view of the foregoing, Applicants respectfully request withdrawal of the rejection of claims 30, 32-35 and 37-39 as being anticipated by Rogers *et al.*

#### **IX. Rejections under 35 U.S.C. § 103**

**Claims 30-31, 33-36, 38-44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over each of Horsch *et al.*, DeBlock *et al.*, and Zambryski *et al.***

Claims 30 and 33 have been canceled rendering the rejection over these claims moot. In addition, Applicants have incorporated the amendment suggested by the Examiner at page 18 of the September 27, 2001, Office Action into claims 31, 34 and claim 35, thereby obviating the rejection. In view of the foregoing, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of record.

**Claims 30-44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Zambryski *et al.* in view of Rogers *et al.* (U.S. 5,034,322)**

Claims 30 and 33 have been canceled rendering the rejection over these claims moot. Claims 34-36, 39, 40 and 43<sup>2</sup> have been amended rendering the rejection over these claims moot.

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<sup>2</sup> Each of claims 37, 38, 41, 42 and 44 depend directly or indirectly from one of claims 34-36, 39, 40 and 43.



Establishment of a *prima facie* case of obviousness requires that there must be some suggestion or motivation to modify or combine references. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1443 (Fed. Cir. 1991). Moreover, motivation must be found either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the referenced teaching to derive the claimed invention. *In re Fine*, 837 F.2d 1071, 1074-75 (Fed. Cir. 1988). The Examiner has failed to point to any such motivation to combine the references.

Moreover, whatever else the references disclose or suggest, they do not disclose or suggest a DNA construct comprising as operably linked components in the direction of transcription, a promoter region obtainable from a gene, where transcription of the gene is light-inducible in a plant chloroplast containing tissue; a DNA sequence of interest other than the native coding sequence of the gene which provides for modulation of expression of endogenous products; and a transcription termination region, where the components are functional in a plant cell, wherein said DNA sequence of interest is in the antisense orientation. In addition, the references neither teach nor suggest employing a promoter of the type recited in combination with a mutated *aroA* gene. For at least the foregoing reasons, Applicants submit that the rejection of these claims should be withdrawn.

Applicants submit that for at least the foregoing reasons, a *prima facie* case of obviousness has not been established and the rejection should be withdrawn.

**Claims 19-27 and 62-130 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hall *et al.* (U.S. 5,504,200) taken with Sengupta-Gopalan *et al.***

The Examiner has failed to provide the necessary motivation to modify or combine Hall *et al.* or Sengupta-Gopalan *et al.* The Examiner is respectfully reminded that such a motivation

must be present to combine the reference. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1443 (Fed. Cir. 1991).

The Examiner alleges that the Sengupta-Gopalan reference teaches “a heterologous gene comprising the phaseolin promoter and phaseolin structural gene,” and cures the deficiencies of Hall *et al.* Whatever else Hall *et al.* and Sengupta-Gopalan *et al.* disclose or suggest, they do not disclose or suggest a construct comprising as operably linked components a promoter region obtainable from a gene, where transcription of the gene is preferentially regulated in a plant tissue of interest, and a DNA sequence of interest other than the native coding sequence of the gene.<sup>3</sup>

In view of the preceding, Applicants respectfully request the Examiner to reconsider the rejection of record and submit that it should be withdrawn.

**Claims 28-29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hall *et al.* (U.S. 5,504,200) taken with Sengupta-Gopalan *et al.* and further in view of Zambryski *et al.* taken with Pedersen *et al.***

The Examiner asserts that Hall *et al.* in view of Sengupta-Gopalan *et al.* teach the transformation of a variety of plant species with *Agrobacterium tumefaciens* and the tumor free transformation of plants. Applicants respectfully submit that whatever else Zambryski *et al.* taken with Pedersen *et al.* teach or suggest, they cannot cure the deficiencies of Hall *et al.* in view of Sengupta-Gopalan *et al.*, as discussed *supra*, and therefore the rejection should be withdrawn.

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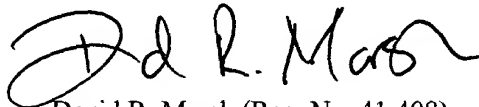
<sup>3</sup> At page 20, lines 12-13, of the September 27, 2001, Office action, the Examiner expressly admits that the Hall *et al.* reference fails to teach a “chimeric gene construct comprising the phaseolin promoter and a heterologous structural gene.”

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In view of the above, each of the presently pending claims in the application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested in withdraw the outstanding rejections of the claims and to pass this application to issues. The Examiner is invited to contact the undersigned at (202) 942-5000 with respect to any unresolved issues remaining in this application.

The Examiner is encouraged to contact the undersigned should any additional information be necessary for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "D. R. Marsh", with a stylized flourish at the end.

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**MARKED-UP VERSION OF AMENDMENTS PURSUANT TO 37 C.F.R. 121**

**In the specification:**

**CROSS REFERENCE TO RELATED  
APPLICATIONS**

This application is a reissue of U.S. Ser. No. 08/105,852 filed August 10, 1993 (issued as U.S. Pat. No. 5,753,475), which is a continuation-in-part of U.S. Ser. No. 07/526,123 filed May 21, 1990 which is a continuation of U.S. Ser. No. 07/267,685 filed Nov. 2, 1988 (now abandoned) which is a continuation of U.S. Ser. No. 06/692,605 filed Jan. 17, 1985 (now abandoned)[. This application] ; said 08/105, 852 is also a continuation-in-part of U.S. Ser. No. 07/582,241 filed Sep. 14, 1990[, ] (now abandoned), which is a continuation of U.S. Ser. No. 07/188,361 filed Apr. 29, 1988 (now abandoned), which is a continuation-in-part of U.S. Ser. No. 07/168,190 filed Mar. 15, 1988, (now abandoned) which is a continuation-in-part of U.S. Ser. No. 07/054,369 filed May 26, 1987, now [(issued as) U.S. Pat. No. 4,943,674[. This application] ; said 08/105,852 is also a continuation-in-part of U.S. Ser. No. 07/742,834 filed Aug. 8, 1991, now U.S. Pat. No. 5,420,034, which is a continuation-in-part of U.S. Ser. No. 07/550,804 filed Jul. 9, 1990[, ] (now abandoned), which is a continuation-in-part of U.S. Ser. No. 07/147,781 filed Jan. 25, 1988 (now abandoned) which is a continuation-in-part of U.S. Ser. No. 07/078,538 filed Jul. 28, 1987 (now abandoned) which is a continuation-in-part of U.S. Ser. No. 06/891,529 filed Jul. 31, 1986 (now abandoned); said 08/105,852 is also a continuation-in-part of U.S. Ser. No. 07/826,696 filed January 28, 1992, now U.S. Pat. No. 5,315,001, which is a continuation-in-part of U.S. Ser. No. 07/437,764 filed November 15, 1989, now U.S. Pat. No. 5,110,728), which is a continuation of U.S. Ser. No. 07/078,924 filed July 28, 1987 (now

abandoned) which is a continuation-in-part of said U.S. Ser. No. 06/891,529 filed July 31, 1986  
(now abandoned).

**In the claims:**

31. (Once Amended) [The plant cell according to claim 30,] A plant cell having integrated into its genome a DNA construct comprising as operably linked components in the direction of transcription, a promoter region obtainable from a gene, wherein said gene is light-inducible in a plant chloroplast containing tissue; a DNA sequence of interest other than the native coding sequence of said gene and native to a plant host; and a transcription termination region, wherein said components are functional in a plant cell; and wherein said DNA sequence of interest is in [the] an antisense orientation.

32. (Once Amended) The plant cell according to claim [30] 31, wherein said promoter region is an SSU promoter.

34. (Once Amended) A [The] DNA construct comprising as operably linked components in the direction of transcription, a promoter region obtainable from a gene, wherein transcription of said gene is [light-regulated] light-inducible in a plant chloroplast containing tissue, a DNA sequence of interest which provides for at least one of increased capability of protein storage, improved nutrient source, enhanced response to light, enhanced dehydration resistance, [enhanced herbicide resistance and] and enhanced resistance to viruses, insects [and] or fungi.

35. (Once Amended) A DNA construct comprising as operably linked components in the direction of transcription, a promoter region obtainable from a gene, wherein said gene is light-inducible in a plant chloroplast containing tissue; a DNA sequence of interest; [The DNA construct according to claim 34,] wherein said DNA sequence of interest is a mutated *aroA* gene.

36. (Once Amended) A DNA construct comprising as operably linked components in the direction of transcription, a promoter region obtainable from a gene, wherein transcription of said gene is light-inducible in a plant chloroplast containing tissue; a DNA sequence of interest other than the native coding sequence of said gene; and a transcription termination region, wherein said components are functional in a plant cell, and [The DNA construct according to claim 33,] wherein said DNA sequence of interest is in [the] an antisense orientation.

37. (Once Amended) [The] A DNA construct according to Claim [33] 34, wherein said promoter region is an SSU promoter.

38. (Once Amended) [The] A DNA construct according to Claim [33] 34, wherein said DNA construct is flanked by T-DNA.

39. (Once Amended) A plant cell having an altered phenotype as a result of expression of a DNA construct [according to Claim 33], said DNA construct comprising as operably linked components in the direction of transcription, a promoter region obtainable from a gene, wherein transcription of said gene is light-inducible in a plant chloroplast containing tissue, a DNA sequence of interest which provides for at least one of increased capability of protein storage, improved nutrient source, enhanced response to light, enhanced dehydration resistance, and enhanced resistance to viruses, insects or fungi.

40. (Once Amended) A plant comprising cells comprising a DNA construct[ according to Claim 33], said DNA construct comprising as operably linked components in the direction of transcription, a promoter region obtainable from a gene, wherein transcription of said gene is light-inducible in a plant chloroplast containing tissue, a DNA sequence of interest which provides for at least one of increased capability of protein storage, improved nutrient source,

enhanced response to light, enhanced dehydration resistance, and enhanced resistance to viruses, insects or fungi.

43. (Once Amended) A plant part having an altered phenotype as a result of expression of a DNA construct[ according to Claim 33], said DNA construct comprising as operably linked components in the direction of transcription, a promoter region obtainable from a gene, wherein transcription of said gene is light-inducible in a plant chloroplast containing tissue, a DNA sequence of interest which provides for at least one of increased capability of protein storage, improved nutrient source, enhanced response to light, enhanced dehydration resistance, and enhanced resistance to viruses, insects or fungi.

62. (Once Amended) A plant having a regulatable phenotype comprising as integrated into its genome a DNA construct according to Claim 21, [33,] 34, or 49.

63. (Once Amended) A plant with an altered phenotype in a plant tissue of interest as distinct from other tissues, said plant comprising as integrated into its genome a DNA construct according to Claim 21, [33,] 34, or 49.

64. (Once Amended) A plant with a modified genotype comprising as integrated into its genome a DNA construct according to Claim 21, [33,] 34, or 49.

66. (Once Amended) A method for altering the phenotype of a plant tissue of interest [as distinct from other plant tissue], said method comprising:

growing a plant, wherein said plant comprises cells containing a DNA construct integrated into their genome, said DNA construct comprising, in the 5' to 3' direction of transcription, a transcriptional initiation region from a gene, wherein transcription of said gene is preferentially associated with a specific stage of plant growth, a DNA sequence of interest other than the coding sequence native to said transcriptional initiation region, and a transcriptional

termination region, whereby said DNA sequence of interest is transcribed under transcriptional control of said transcriptional initiation region and [a] said plant having an altered phenotype is obtained.

76. (Once Amended) A method to selectively express a heterologous DNA sequence of interest in a plant tissue of interest [as distinct from other plant tissue], said method comprising:  
growing a plant capable of developing a plant tissue of interest under conditions to produce said plant tissue of interest, wherein said plant comprises cells having a genomically integrated DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a transcriptional initiation region specifically regulated during a particular stage of growth[, and a translational initiation region], a DNA sequence of interest other than the coding sequence native to said transcriptional initiation region, and a transcriptional termination region downstream of said DNA sequence of interest, whereby said DNA sequence of interest is expressed under control of said transcriptional [and translational] initiation region specifically regulated in said plant tissue of interest.

92. (Once Amended) A method to selectively express a heterologous DNA sequence of interest in a plant tissue of interest [as distinct from other plant tissue], said method comprising:  
growing a plant capable of developing a plant tissue of interest under conditions to produce said plant tissue of interest, wherein said plant comprises cells having a genomically integrated DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a transcriptional initiation region specifically regulated in a plant tissue selected from the group consisting of chloroplast containing tissue, embryonic seed tissue and fruit tissue, [and a translational initiation region,] a DNA sequence of interest other than the coding sequence native to said transcriptional initiation region which provides for modulation of expression of



endogenous products, and a transcriptional termination region downstream of said DNA sequence of interest, whereby said DNA sequence of interest is expressed under control of said transcriptional [and translational] initiation region specifically regulated in said plant tissue of interest.

113. (Once Amended) A method for obtaining a plant having a regulatable phenotype[, said method comprising;] comprising:

transforming a host plant cell with a DNA construct under genomic integration conditions, wherein said DNA construct comprises as operably linked components in the direction of transcription, a promoter region obtainable from a gene, wherein transcription of said gene is preferentially regulated in a plant tissue selected from the group consisting of chloroplast containing tissue, embryonic seed tissue and fruit tissue[;], a DNA sequence of interest other than the native coding sequence of said gene which provides for at least one of increased capability of protein storage, improved nutrient source, enhanced response to light, enhanced dehydration resistance, enhanced herbicide resistance, and enhanced resistance to viruses, insects [and] or fungi[;], and a transcription termination region, wherein said components are functional in a plant cell, whereby said DNA construct becomes integrated into a genome of said plant cell;

regenerating a plant from said transformed plant cell, and growing said plant under conditions whereby said DNA sequence of interest is expressed [and a plant having said regulatable phenotype is obtained].

114. (Once Amended) A method for altering the phenotype of a plant tissue of interest [as distinct from other plant tissue], said method comprising:

growing a plant, wherein said plant comprises cells containing a DNA construct integrated into their genome, said DNA construct comprising, in the 5' to 3' direction of

transcription, a transcriptional initiation region from a gene, wherein transcription of said gene is preferentially regulated in a plant tissue selected from the group consisting of chloroplast containing tissue, embryonic seed tissue and fruit tissue, a DNA sequence of interest other than the coding sequence native to said transcriptional initiation region which provides for at least one of increased capability of protein storage, improved nutrient source, enhanced response to light, enhanced dehydration resistance, enhanced herbicide resistance, and enhanced resistance to viruses, insects [and] or fungi[;], and a transcription termination region[;];

whereby said DNA sequence of interest is transcribed under transcriptional control of said transcriptional initiation region, and [a] said plant having an altered phenotype is obtained.

117. (Once Amended) A method for modifying the genotype of a plant to impart a desired characteristic to a plant tissue of interest [as distinct from other plant tissue, said method] comprising:

transforming under genomic integration conditions, a host plant cell with a DNA construct comprising in the 5' to 3' direction of transcription, a transcriptional initiation region from a gene, wherein transcription of said gene is preferentially regulated in a plant tissue selected from the group consisting of chloroplast containing tissue, embryonic seed tissue and fruit tissue, a DNA sequence of interest other than the native coding sequence of said gene which provides for at least one of increased capability of protein storage, improved nutrient source, enhanced response to light, enhanced dehydration resistance, enhanced herbicide resistance, and enhanced resistance to viruses, insects [and] or fungi[;], and a transcription termination region, whereby said DNA construct becomes integrated into the genome of said plant cell;

regenerating a plant from said transformed host cell; and

growing said plant to produce a plant tissue of interest having a modified genotype.

121. (Once Amended) A method for modifying transcription in plant tissue of interest as distinct from other plant tissue, [said method] comprising:

growing a plant capable of developing a plant tissue of interest under conditions to produce said plant tissue of interest, wherein said plant comprises cells containing a DNA construct integrated into their genome, said DNA construct comprising, in the 5' to 3' direction of transcription, a transcriptional initiation region specifically regulated in a plant tissue selected from the group consisting of chloroplast containing tissue, embryonic seed tissue and fruit tissue, a DNA sequence of interest other than the coding sequence native to said transcriptional initiation region which provides for at least one of increased capability of protein storage, improved nutrient source, enhanced response to light, enhanced dehydration resistance, enhanced herbicide resistance, and enhanced resistance to viruses, insects [and] or fungi[,], and a transcriptional termination region[,];

whereby said DNA sequence of interest is transcribed under transcriptional control of said transcription initiation region specifically regulated in said plant tissue of interest.

124. (Once Amended) A method to selectively express a heterologous DNA sequence of interest in a plant tissue of interest [as distinct from other plant tissue, said method] comprising:

growing a plant capable of developing a plant tissue of interest under conditions to produce said plant tissue of interest, wherein said plant comprises cells having a genomically integrated DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a transcriptional initiation region specifically regulated in a plant tissue selected from the group consisting of chloroplast containing tissue, embryonic seed tissue and fruit tissue, [and a translational initiation region,] a DNA sequence of interest other than the coding sequence native to said transcriptional initiation region which provides for at least one of increased

capability of protein storage, improved nutrient source, enhanced response to light, enhanced dehydration resistance, enhanced herbicide resistance, and enhanced resistance to viruses, insects [and] or fungi[;], and a transcription termination region downstream of said DNA sequence of interest[;];

whereby said DNA sequence of interest is expressed under the control of said transcriptional [and translational] initiation region specifically regulated in said plant tissue of interest.

129. (Once Amended) A method for obtaining a plant having a regulatable phenotype, said method comprising:

transforming a host plant cell with a DNA construct under genomic integration conditions, wherein said construct comprises as operably linked components in the direction of transcription, a promoter region obtainable from a gene, wherein transcription of said gene is preferentially regulated in a plant tissue of interest[;], a DNA sequence of interest other than the native coding sequence of said gene that is not a phaseolin coding sequence, [;] and a transcription termination region, wherein said components are functional in a plant cell,

whereby said DNA construct becomes integrated into a genome of said plant cell;

regenerating a plant from said transformed plant cell[;], and

growing said plant under conditions whereby said DNA sequence of interest is expressed, and a plant having said regulatable phenotype is obtained.

130. (Once Amended) A method for altering the phenotype of a plant tissue of interest [as distinct from other plant tissue], said method comprising:

growing a plant, wherein said plant comprises cells containing a DNA construct integrated into their genome, said DNA construct comprising, in the 5' to 3' direction of

transcription, a transcriptional initiation region from a gene, wherein transcription of said gene is preferentially regulated in a plant tissue of interest, a DNA sequence of interest other than the coding sequence native to said transcriptional initiation region that is not a phaseolin coding sequence,[;] and a transcriptional termination region;<sub>i</sub>[,]

whereby said DNA sequence of interest is transcribed under transcriptional control of said transcriptional initiation region<sub>i</sub> and a plant having an altered phenotype is obtained.